trans-Cinnamic acid-d_7

Cat. No.: HY-N0610S1

CAS No.: 343338-31-8

Molecular Formula: $C_9HD_7O_2$

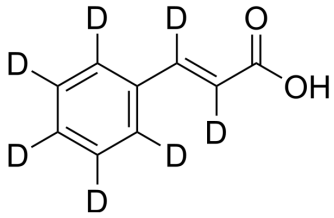
Molecular Weight: 155.2

Target: Bacterial; Endogenous Metabolite

Pathway: Anti-infection; Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (644.33 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.4433 mL	32.2165 mL	64.4330 mL
	5 mM	1.2887 mL	6.4433 mL	12.8866 mL
	10 mM	0.6443 mL	3.2216 mL	6.4433 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

trans-Cinnamic acid-d_7 is the deuterium labeled trans-Cinnamic acid[1]. trans-Cinnamic acid is a natural antimicrobial, with minimal inhibitory concentration (MIC) of 250 μg/mL against fish pathogen A. sobria, SY-AS1[2].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Yilmaz S, et al. Antimicrobial activity of trans-cinnamic acid and commonly used antibiotics against important fish pathogens and nonpathogenic isolates. J Appl Microbiol. 2018 Sep 4.

Caution: Product has not been fully validated for medical applications. For research use only.

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